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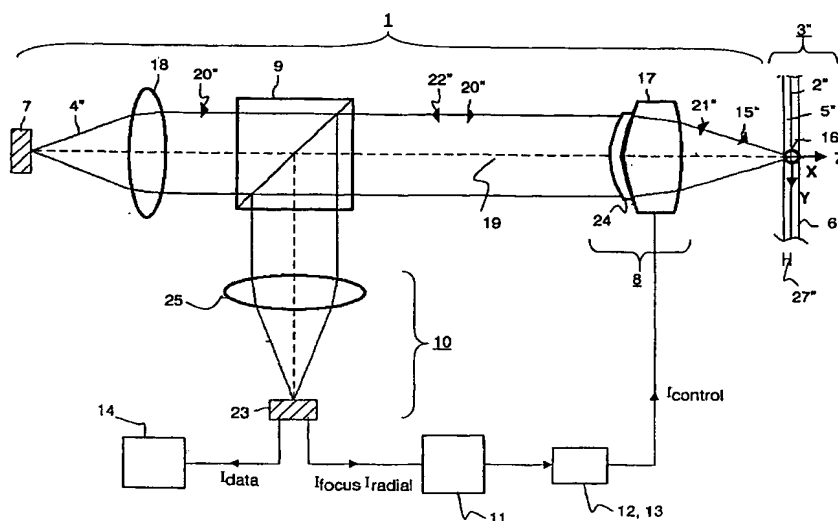
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(54) Title: OPTICAL SCANNING DEVICE



(57) Abstract: An optical device (1) for scanning three information layers (2, 2', 2'') by means of three radiation beams (4, 4', 4'') having three respective wavelengths ($\lambda_1, \lambda_2, \lambda_3$) and polarizations (p_1, p_2, p_3), wherein the three wavelengths substantially differ from each other. The device comprises a radiation source (7) for emitting the three radiation beams, an objective lens system (8) for converging the three radiation beams beam on the positions of the three respective information layers, and a phase structure (24) having a non-periodic stepped profile. Furthermore, the structure includes birefringent material sensitive to the three polarizations and the stepped profile is designed for introducing three wavefront modifications ($\Delta W_1, \Delta W_2, \Delta W_3$) for the three wavelengths, respectively, wherein one of the wavefront modifications is of a type different from the others and one of the polarizations differs from the others.

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